

# Md. Aquib Azmain

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## Personal Statement

I am a graduate student at University of Dhaka pursuing my Masters of Science in Software Engineering. Seeking for the position of a Software Engineer, offering expert web development frameworks and advanced programming skills. Currently, I am working as a short course instructor at Institute of Information Technology, University of Dhaka. I have hands-on research experiences on Automatic Program Repair, Data Science and Deep Learning and have two international publications on them in reputed conferences.

## Education

Degree	Institution	Group/Major	Result	Year
<b>Master of Science in Software Engineering</b>	Institute of Information Technology, University of Dhaka	Software Engineering	3.67 (up to 2 <sup>nd</sup> Semester)	2019 to present (Expected December 2020)
<b>Bachelor of Science in Software Engineering</b>	Institute of Information Technology, University of Dhaka	Software Engineering	CGPA 3.89 out of 4.00	2015 to 2018
<b>HSC</b>	Government Azizul Haque College, Bogra	Science	GPA 5.00 out of 5.00	2014
<b>SSC</b>	Bogra Cantonment Public School and College, Bogra	Science	GPA 5.00 out of 5.00	2012

## Professional Experience

- Short Course Instructor** at IIT, University Of Dhaka (Aug 2018-Present):
  - Provided clear, informative lectures on web programming, web design and smart office.
  - Created and implemented written and oral assessments (Lab exams, presentations).
  - Supervisor: Lecturer Abdus Satter and Lecturer Kishan Kumar Ganguly
- Software Engineer Intern** at SELISE Rockin' Software, Dhaka (Jan 2018-Jun 2018):
  - Engaged in software development utilizing wide range of technological tools.
  - Wrote code on Angular 6 and C#.
- Requirement Analyst** at Softcell Solution Limited (Jul 2017-Dec 2017):
  - Conducted requirement analysis for a software "Digital Letter" of Department of Military Lands & Cantonments

## Skills and Certification

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- **Programming Skills:** Python, Java, C++, C
- **Web based Skills:** Angular, PHP, MySQL, Flask, Javascript
- **Tools:** TensorFlow, Jira, Git
- **IBM Data Science Professional Certificate** by IBM on Coursera. Certificate earned at November 29, 2020. Certificate Link: <https://coursera.org/share/ded2601302dd0669b44a89fbd33cca06>
- **Problem Solving (Basic) Certificate** by HackerRank. Certificate earned at September 21, 2020. Certificate Link: <https://www.hackerrank.com/certificates/84e5445c99c6>
- **Python (Basic) Certificate** by HackerRank. Certificate earned at September 21, 2020. Certificate Link: <https://www.hackerrank.com/certificates/9b1986c56db8>

## Projects

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(Check out this link: <https://aquibazmain.github.io/projects.html> )

Virtual Trial Room	<p><b>Description:</b> This software provides a more immersive online shopping experience powered by augmented reality. It eliminates the need for physical trial rooms and end vicious crimes.</p> <p><b>Platform:</b> Web application</p> <p><b>Technology:</b> Python flask, bootstrap</p>
Hall Management System	<p><b>Description:</b> This project was generated with Angular CLI version 1.4.2. This system was developed for the management of students, hall rooms, employees, store and accounting of Salimullah Muslim Hall, University of Dhaka.</p> <p><b>Platform:</b> Web application</p> <p><b>Technology:</b> Angular, Python flask</p>
UIAnalyzer	<p><b>Description:</b> UIAnalyzer is a web-based analytics tool that identifies and reports website UI smell. You can use these reports to get actionable insights and use them to take steps to improve your website. This project is a part of an academic course (SPL3).</p> <p><b>Platform:</b> Web application</p> <p><b>Technology:</b> Angular, Python flask</p>
Audio Editor	<p><b>Description:</b> A software for audio searching and editing. This software can merge, trim audio files (mp3) and also search audio using the metadata of the file.</p> <p><b>Platform:</b> Windows application</p> <p><b>Technology:</b> Java</p>
Shworolipi	<p><b>Description:</b> A music streaming web application. The features of this site are searching Bengali songs, providing a registration process to be a member, managing the accounts, playlists of the members and providing admins with a separate interface for their administrative activities.</p> <p><b>Platform:</b> Web application</p> <p><b>Technology:</b> HTML, CSS, JavaScript, PHP, MySQL</p>
Morichbati	<p><b>Description:</b> A simple web based enterprise resource planner that includes customer service management, human resource management and recommendation system</p> <p><b>Platform:</b> Web application</p> <p><b>Technology:</b> HTML, CSS, JavaScript, PHP, MySQL</p>

## Awards and Fellowship

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- **“ICT Fellowship 2019-20”** for the purpose of Master’s thesis from ICT Division, Bangladesh
- Secured the position of first runners up at **“Cybernavts 2018 Project Showcasing”** By NSUCEC. Link: [http://www.iit.du.ac.bd/view\\_achievements/view\\_achievements\\_details/51](http://www.iit.du.ac.bd/view_achievements/view_achievements_details/51)
- Secured the position of second runners up at **“Technival 2018 Project Showcasing”** by KUET. Link: [http://www.iit.du.ac.bd/view\\_achievements/view\\_achievements\\_details/52](http://www.iit.du.ac.bd/view_achievements/view_achievements_details/52)
- Secured the position of second runners up at **“BUET CSE Fest Inter University Project Show 2018”**. Link: [http://www.iit.du.ac.bd/view\\_achievements/view\\_achievements\\_details/53](http://www.iit.du.ac.bd/view_achievements/view_achievements_details/53)
- **Board Merit Scholarship** and full tuition waiver in the undergraduate study at the University of Dhaka, Bangladesh for excellence in H.S.C Examination, 2014, Rajshahi Board.

## Publications

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1. **“Impact of label noise and efficacy of noise filters in software defect prediction”**, Shihab Shahriar Khan, Md. Aquib Azmain, Nishat Tasnim Niloy, and Ahmedul Kabir. The 32nd International Conference on Software Engineering and Knowledge Engineering, SEKE 2020, USA, pages 347-352.
2. **“On the Evolutionary Properties of Fix Inducing Changes”**, Syed Fatiul Huq (Sujoy), Md. Aquib Azmain, Nadia Nahar and Md. Tawhid, QuASoQ 2020 in conjunction with the 27th Asia-Pacific Software Engineering Conference (APSEC 2020).

## Research Experience

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- **Improving symmetric structure during resolution of mobile friendly problems in web pages:** Mobile friendly problem (MFP) causes the low quality of the website visibility and has a potential risk to decrease usability for a mobile user. The solution proposed an automatic repair technique that generates symmetric mobile friendly patches for a web page.
- **On the evolutionary properties of fix inducing changes:** Analyzing Fix-Inducing Changes (developer code that introduce bugs) provides the opportunity to estimate bugs beforehand. This study analyzes the evolution of FICs to visualize patterns associated with the introduction of bugs throughout and within project releases.
- **Noise filters in software defect prediction:** By using a diverse set of classifiers, imbalance-methods and noise filters, this study empirically investigates how the presence of label noise in post-release defect prediction datasets affect performance and evaluates the effectiveness of noise filters in minimizing the adverse effects of noise.
- **Towards the detection and refactoring of message chains:** Message Chain is a code smell which occurs when inefficient responsibility delegations create chains of consequent method calls, resulting in code that becomes difficult to interpret and maintain. This study proposes a method of detecting and suggesting the refactoring for Message Chains.
- **A machine learning-based inference and analysis of crop production based on climate parameters in Bangladesh:** Using standard approaches of machine learning – linear11regression, support vector machine, random forest and more – this studu provides appropriate prediction models for all the crops considered and infers the numeric effect of various climate factors on the unit production of the crops.

## Additional Activities

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1. **Web Designer**, Training Workshop on DevOps 2019, IIT, DU
  - A workshop on DevOps has been organized by the DSSE (Distributed Systems & Software Engineering) Student Research Group on 3rd and 4th August. I developed the website for this workshop.
2. **Volunteer** at National High School Programming Contest 2016 (Dhaka Regional)
  - NHSPC 2016 (Dhaka Regional) junior division contest was held in Institute of Information Technology, University of Dhaka. My job was to give technical support to the participants.
3. **Event Organizer**, IIT, DU Industry Academia Collaboration 2017 7 (with 10 leading companies)
  - Institute of Information Technology (IIT) of the University of Dhaka held its first ever Industry Academia Collaboration Session on 5th August 2017. I was a member of the organizing committee.

## References

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Available upon request